

Claims

1-15. (Canceled)

16. (new) A data communications system comprising first and second apparatus, each of said first and second apparatus having a respective port disposed for sending and receiving common channel signaling data for telephone call processing, the first and second apparatus connected by a packet-switched communications channel, said channel of a type routing messages over an arbitrary path comprising hops including a final hop, said channel of a type in which the final hop of a path is not fully known in advance; each of said first and second apparatus further comprising means receiving common channel signaling data via its respective port, encapsulating said common channel signaling data in packets, and transmitting said packets to said packet-switched communications channel; each of said first and second apparatus further comprising means receiving said packets from said packet-switched communications channel, extracting said common channel signaling data from said packets, and transmitting said common channel signaling data via its respective port;

wherein the first and second apparatus are further connected by an on-demand communications channel; each of said first and second apparatus further comprising means testing the packet-switched communications channel, and responding to a failed test of the packet-switched communications channel by establishing the on-demand communications channel; the means receiving common channel signaling data via the respective port of the first and second apparatus responsive to the failed test by transmitting said encapsulated packets to said on-demand communications channel; the means receiving said packets from said on-demand communications channel responsive to the failed test by extracting said common channel signaling data from said packets, and transmitting said common channel signaling data via the respective ports of said first and second apparatus.

17. (New) The system of claim 16 wherein a failed test of the packet-switched communications

channel comprises excessive latency in the packet-switched communications channel.

³
~~18.~~ (New) The system of claim ¹~~16~~ wherein the on-demand communications channel is ISDN.

⁴
~~19.~~ (New) A method for use with a data communications system comprising first and second apparatus, each of said first and second apparatus having a respective port disposed for sending and receiving common channel signaling data for telephone call processing, the first and second apparatus connected by a packet-switched communications channel, said channel of a type routing messages over an arbitrary path comprising hops including a final hop, said channel of a type in which the final hop of a path is not fully known in advance; the method performed within each apparatus comprising the steps of receiving common channel signaling data via the respective port, encapsulating said common channel signaling data in packets, and transmitting said packets to said packet-switched communications channel; said method performed within each apparatus further comprising the steps of receiving said packets from said packet-switched communications channel, extracting said common channel signaling data from said packets, and transmitting said common channel signaling data via the respective port;

wherein the first and second apparatus are further connected by an on-demand communications channel; said method further comprising the steps of testing the packet-switched communications channel, responding to a failed test of the packet-switched communications channel by establishing the on-demand communications channel; receiving common channel signaling data via the respective port of the first and second apparatus and transmitting said encapsulated packets to said on-demand communications channel; receiving said packets from said on-demand communications channel and extracting said common channel signaling data from said packets, and transmitting said common channel signaling data via the respective ports of said first and second apparatus.